

Pra t i t l e n o f D k t N .

1348/110

PATENT**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Patent application

of _____

Inventor(s)

for _____

Title of invention

OR

In re application of: Percival

Application No.: N/A

Group Art Unit: N/A

Filed: filed herewith

Examiner: N/A

For: Method and System for Coherently Caching I/O Devices Across a Network

Commissioner for Patents

P.O. Box 1450

Alexandria, VA 22313-1450

INFORMATION DISCLOSURE STATEMENT**CERTIFICATE UNDER 37 C.F.R. § 1.8(a) and 1.10****(When using Express Mail, the Express Mail label number is mandatory;
Express Mail certification is optional.)*

I hereby certify that this correspondence is, on the date shown below, being:

MAILING☐ deposited with the United States Postal Service in an envelope addressed to the Commissioner for Patents,
P.O. Box 1450, Alexandria, VA 22313-1450**37 C.F.R. § 1.8(a)****37 C.F.R. § 1.10***☐ with sufficient postage as first class mail.☒ as "Express Mail Post Office to Addressee"Mailing Label No. EV 333083479 US (**mandatory**)**TRANSMISSION**☐ transmitted by facsimile to the Patent and Trademark Office.

Date: October 10, 2003

Signature

Robert M. Asher

(type or print name of person certifying)

(Information Disclosure Statement [6-1]--page 1 of 11)

NOTE: "An information disclosure statement shall be considered by the Office if filed by the applicant within any one of the following time periods:

- (1) Within three months of the filing date of a national application other than a continued prosecution application under § 1.53(d);
- (2) Within three months of the date of entry of the national stage as set forth in § 1.491 in an international application;
- (3) Before the mailing date of a first Office action on the merits; or
- (4) Before the mailing date of a first Office action after the filing of a request for continued examination under § 1.114."

37 C.F.R. § 1.97(b).

NOTE: "Each individual associated with the filing and prosecution of a patent application has a duty of candor and good faith in dealing with the Office, which includes a duty to disclose to the Office all information known to that individual to be material to patentability as defined in this section." 37 C.F.R. § 1.56(a).

"Individuals associated with the filing or prosecution of a patent application within the meaning of this section are:

- (1) each inventor named in the application;
- (2) each attorney or agent who prepares or prosecutes the application; and
- (3) every other person who is substantively involved in the preparation or prosecution of the application and who is associated with the inventor, with the assignee or with anyone to whom there is an obligation to assign the application." 37 C.F.R. § 1.56(c).

NOTE: The "duty as described in § 1.56 will be met so long as the information in question was cited by the Office or submitted to the Office in the manner prescribed by §§ 1.97(b)-(d) and 1.98 before issuance of the patent." Notice of January 9, 1992, 1135 O. G. 13 -25 at 17.

WARNING: "No information disclosure statement maybe filed in a provisional application." 37 C.F.R. § 1.51(d).

List of Sections Forming Part of This Information Disclosure Statement

The following sections are being submitted for this Information Disclosure Statement:

(check sections forming a part of this statement: discard *unused* sections and number pages consecutively)

1. ☒ Preliminary Statements
2. ☒ FORMS PTO/SB/08A and 08B (formerly FORM PTO-1449)
3. ☐ Statement as to Information Not Found in Patents or Publications
4. ☒ Identification of Prior Application in Which Listed Information Was Already Cited and for Which No Copies Are Submitted or Need Be Submitted
5. ☐ Cumulative Patents or Publications
6. ☐ Copies of Listed Information Items Accompanying This Statement
7. ☐ Concise Explanation of Non-English Language Listed Information Items
 - 7A. ☐ EPO Search Report
 - 7B. ☐ English Language Version of EPO Search Report
8. ☐ Translation(s) of Non-English Language Documents
9. ☐ Concise Explanation of English Language Listed Information Items (Optional)
10. ☒ Identification of Person(s) Making This Information Disclosure Statement

NOTE: "Once the minimum requirements are met the examiner has an obligation to consider the information." Notice of April 20, 1992 (1138 O.G. 37-41, 37).

Section 1. Preliminary Statements

Applicants submit herewith patents, publications or other information, of which they are aware that they believe may be material to the examination of this application, and in respect of which, there may be a duty to disclose.

The filing of this information disclosure statement shall not be construed as a representation that a search has been made (37 C.F.R. § 1.97(g)), an admission that the information cited is, or is considered to be, material to patentability, or that no other material information exists.

The filing of this information disclosure statement shall not be construed as an admission against interest in any manner. Notice of January 9, 1992, 1135 O.G. 13-25, at 25.

In addition to the Form PTO/SB/08A, also enclosed are the following:

Information Disclosure Statement dated April 1, 1998
Declaration of Pamela Cleveland dated March 30, 1997
Declaration of Eric Dickman dated March 30, 1998
Declaration of Eric Dickman dated July 16, 1997
Declaration of Eric Dickman dated January 30, 1996

SECTION 2. FORMS PTO/SB/08A and 08B (formerly Form PTO-1449)**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Applicants: Percival Attorney Docket: 1348/110
Serial No: N/A Art Group Unit: N/A
Date Filed: filed herewith Examiner Name: N/A
Invention: Method and System for Coherently Caching I/O Devices Across a Network

**LIST OF PATENTS AND PUBLICATIONS FOR APPLICANTS'
INFORMATION DISCLOSURE STATEMENT****United States Patents**

| Examiner Initials | Reference Number | Document Number | Issue Date | Inventor | Class/Subclass |
|----------------------|---------------------|--------------------|-----------------|---------------------|----------------|
| _____ | AA | 3,820,078 | June 25, 1974 | Curley et al. | 395/250 |
| _____ | AB | 4,755,930 | Jul. 5, 1988 | Wilson, Jr. et al. | 395/449 |
| _____ | AC | 4,775,955 | Oct. 4, 1988 | Liu | 395/472 |
| _____ | AD | 4,849,879 | Jul. 18, 1989 | Chinnaswamy et al. | 395/60 |
| _____ | AE | 5,025,366 | Jun. 18, 1991 | Baror | 395/455 |
| _____ | AF | 5,060,144 | Oct. 22, 1991 | Sipple et al. | 395/726 |
| _____ | AG | 5,062,055 | Oct. 19, 1991 | Chinnaswamy et al. | 364/551.01 |
| _____ | AH | 5,067,071 | Nov. 19, 1991 | Schanin et al. | 395/293 |
| _____ | AI | 5,091,846 | Feb. 25, 1992 | Sachs et al. | 395/250 |
| _____ | AJ | 5,136,691 | Aug. 4, 1992 | Baror | 395/466 |
| _____ | AK | 5,185,878 | Feb. 9, 1993 | Baror et al. | 395/450 |
| _____ | AL | 5,241,641 | Aug. 31, 1993 | Iwasa et al. | 395/449 |
| _____ | AM | 5,265,235 | Nov. 23, 1993 | Sindhu et al. | 395/447 |
| _____ | AN | 5,282,272 | Jan. 25, 1994 | Guy et al. | 395/200.0 |
| _____ | AO | 5,307,506 | Apr. 26, 1994 | Colwell et al. | 395/800 |
| _____ | AP | 5,323,403 | Jun. 21, 1994 | Elliott | 371/37.6 |
| _____ | AQ | 5,335,327 | Aug. 2, 1994 | Hisano et al. | 395/250 |
| _____ | AR | 5,347,648 | Sept. 13, 1994 | Stamm et al. | 395/182.0 |
| _____ | AS | 5,353,430 | Oct. 4, 1994 | Lautzenheiser | 395/444 |
| _____ | AT | 5,363,490 | Nov. 8, 1994 | Alferness et al. | 395/581 |
| _____ | AU | 5,390,318 | Feb. 13, 1995 | Ramakrishnan et al. | 395/485 |
| _____ | AV | 5,426,747 | Jun. 20, 1995 | Weinreb et al. | 395/413 |
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| _____ | CZ | 5,301,290 | Apr. 5, 1994 | Tetzlaff et al. | 395/425 |
| _____ | DA | 5,408,653 | Apr. 18, 1995 | Josten et al. | 395/600 |

Foreign Patent Documents

| Examiner Initials | Reference Number | Document Number | Issue Date |
|----------------------|---------------------|--------------------|--------------|
| _____ | AZ | JP64-36351 | May 24, 1989 |

OTHER REFERENCES

| Exam. Init. | Ref. No. | Document |
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| _____ | BA | "The Stanford Dash Multiprocessor", Lenoski et al., Computer, IEEE Computer Society, March 1992, pp. 63-79. |
| _____ | BB | "Cache-Coherency Protocols Keep Data Consistent", Gallant, J., Electronic Technology for Engineers and Engineering Managers, March 14, 1991. |
| _____ | BC | "Disk Cache Replacement Policies for Network Fileservers", Willick, D.L., Distributed Computing Systems, 1993 Int'l. Conf., pp.2-11. |
| _____ | BD | "xFS; A Wide Area Mass Storage File System", Wang, Randolph Y. et al., Workstation Operating Systems, 1993, pp. 71-178. |
| _____ | BE | "Linked List Cache Coherence for Scalable Shared Memory Multiprocessors", Thapar, Manu et al., Parallel Processing, 1993 Symposium, pp. 34-43. |
| _____ | BF | "The S3.Manufacturing Procedure Scalable Shared Memory Multiprocessor", Nowatzky, Andreas et al., System Sciences, 1994 Ann. Hawaii Int'l. Conf., Vol, I, 1/4/94, pp. 144-153. |
| _____ | BG | TURBOCACHET™/TURBODISK™ Software Product Description, EEC Systems, Incorporated, Revised February 24, 1992. |

- _____ BH TURBOCACHETM/TURBODISK™ Quick Start Guide, EEC Systems Incorporated, February 24, 1992
- _____ BI TURBOCACHETM Software Product Description, EEC Systems, Incorporated, Revised: February 24, 1992
- _____ BJ TURBOCACHETM/TURBODISK™, Cover Letter and Release Notes (*read me first*), EEC Systems, Incorporated, February 24, 1992.
- _____ BK TURBOCACHETM/TURBODISK™ Software Installation and User's Guide, EEC Systems Incorporated, February 24, 1992.
- _____ BL "SuperCache™ - Open VMS I/O Performance Accelerator", Software Product Description SuperCache™, 1992, 1993 Turbo Systems International s.a.
- _____ BM "SuperCache™ V.1.2 User and Installation Guide, a TurboWare™ Product", V1.2-08.
- _____ BN "VMS File System Internals" Kirby McCoy, Digital Press, Digital Equipment Corporation, 1990.
- _____ BO "The VAX/VMS Distributed Lock Manager", Snaman, Jr., William E et al., *Digital Technical Journal*, No. 5, Sept. 1987
- _____ BP "The Design and Implementation of a Distributed File System", Goldstein, *Digital Technical Journal*, No. 5, Sept. 1987
- _____ BQ "File System Operation in a VAXcluster Environment", Chapter 8, *VMS File System Internals, McCoy, Digital Press, 1990*
- _____ BR Howard, John, "An Overview of the Andrew File System", USENIX Winter Conference, Feb. 9-12, 1988, Dallas, Texas
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- _____ BT Gray, Cary G. et al., "Leases: An Efficient Fault-Tolerant Mechanism for Distributed File Cache Consistency", 1989 ACM 089791-338-3/89/0012/0202

- _____ BU Macklem, Rick, "Lessons Learned Tuning the 4.3BSD Reno Implementation of the NFS Protocol", USENIX, Winter'91, Dallas, Texas
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- _____ BW Sinniah, Raymond R., "An Introduction to the Andrew File System" <http://homepages.uel.ac.uk/5291.n/afs/afsdoc.html>
- _____ BX Duncan, Ray, "Design Goals and Implementation of the New High Performance File System", *Microsoft Systems Journal*, Sept. 1989, Vol. 4, No. 5
- _____ BY Bell, Les, "OS/2 High Performance File System", <http://www.lesbell.com.ati/hpfstest.html>
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- _____ CB Seltzer, Margo et al., "An Implementation of a Log-Structured File System for UNIX", 1993 Winter USENIX, Jan. 25-29, 1993, San Diego, California
- _____ CC McKusick, Marshall et al., "The Network Filesystem", Chapter 9 of "The Design and Implementation of the 4ABSD Operating System", 1996
- _____ CD PC Tech, "Understanding the OS/2 CONFIG-SYS File", PC Magazine
- _____ CE Jang, Saqib, "NFS and DFS A Functional Comparison", AUSPEX Technical Report 15, April 1997
- _____ CF Transarc Corporation, "The AFS File System in Distributed Computing Environments", May 1, 1996

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- _____ CQ "I/O Express Technical Reports", Executive Software International,
Glendale, CA.; February 1992 - January 1993.
- _____ CR "Field Test Guide for I/O Express Dynamic Data Caching for
VAX/VMS", Executive Software, Glendale, CA.' 9/1989.
- _____ CS "Diskeeper User's Guide V2.1- Errata'", Executive Software, Glendale,
CA.; April 1989.

- _____ CT "Executive Software's Newkeeper", Executive Software, Glendale, CA.; Vol. 4 Issue 4, 1991.
- _____ CU "SuperCache-Open VMS I/O Performance Accelerator", TurboSystems International s.a., distributed by EEC Systems, Inc., Sudbury, MA. 1993
- _____ CV "Executive Software's Newskeeper", Executive Software, Glendale, CA., Vol. 3, Issue 8, May/June 1990.
- _____ CW "Executive Software's Newskeeper", Executive Software, Glendale, CA., Vol. 3, Issue 9, July/August 1990.
- _____ CX "Executive Software's Newskeeper", Executive Software, Glendale, CA., Vol. 4, Issue 1, 1991.
- _____ CY "Executive Software's Newskeeper", Executive Software, Glendale, CA., Vol. 4, Issue 3, 1991

Examiner Signature: _____

Date Considered: _____

NOTE FOR EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance AND not considered. Include copy of this form with next communication to applicant.

Section 4. Identification of Prior Application in Which Listed Information Was Already Cited

NOTE: "A copy of any patent, publication or other information listed in an information disclosure statement is not required to be provided if it was previously cited by or submitted to the Office in a prior application, provided that the prior application is properly identified in the statement and relied upon for an earlier filing date under 35 U.S.C. 120." 37 C.F.R. § 1.98(d).

WARNING: "This exception to the requirement for copies of information does not apply to information which was cited in an international application under the Patent Cooperation Treaty." Notice of April 20, 1992 (1138 O.G. 37-41, 38)

WARNING: "Information which is cited or submitted to the Office in the parent application of a file wrapper continuing application under 37 C.F.R. 1.62 will be part of the file before the examiner and need not be resubmitted in the continuing application. Likewise, the examiner will consider information cited or submitted to the Office in a parent application when examining a continuing application and thus this information need not be resubmitted unless applicant desires the information to be printed on the patent." Notice of April 20, 1992 (1138 O.G. 37-41, 37)

WARNING: While a copy of a non-English language item of information need not be submitted, if it was previously submitted to, or cited by, the Office in a prior application, provided it is properly identified in this statement and this application relies on that earlier filing date under 35 U.S.C. 120, nevertheless, the requirement in § 1.98(a)(3) for a concise explanation of non-English language information would not be satisfied by a statement that a reference was cited in the prosecution of a parent application. The concise explanation must explain the relevance, as presently understood by the person designated in § 1.56(c) most knowledgeable about the content of the information. Notice of January 9, 1992, 1135 O.G. 13-25, at 20.

This application relies, under 35 U.S.C. § 120, on the earlier filing date of prior application S.N. 10/052,873 filed on January 16, 2002 which claims priority from application S.N. 09/300,633 filed on April 27, 1999 issued as U.S. Patent No. 6,370,615 on April 9, 2002. This application also relies, under 35 U.S.C. § 120 on the earlier filing date of S.N. 08/657,777, filed on May 31, 1996 issued as U.S. Patent No. 5,918,244 and S.N. 08/238,815, filed on May 6, 1994 issued as U.S. Patent No. 5,577,226 and prior application S.N. 10/052,873.

(complete the following, if applicable)

The following references were submitted to, and /or cited by, the Office in the prior application(s) and, therefore, are not required to be provided in this application:

AA-DA

Section 10. Identification of Person(s) Making This Information Disclosure Statement

The person making this statement is

(check each applicable item)

- (a) ☐ the inventor(s) who signs below

SIGNATURE OF INVENTOR

(type or print name of inventor who is signing)

- (b) ☐ an individual associated with the filing and prosecution of this application (37 C.F.R. § 1.56(c))

SIGNATURE OF INVENTOR

(type or print name of inventor who is signing)

- (c) ☒ the practitioner who signs below on the basis of the information:

(check each applicable item)

- ☐ supplied by the inventor(s).
☐ supplied by an individual associated with the filing and prosecution of this application. (37 C.F.R. § 1.56(c))
☒ in the practitioner's file.

Reg. No.: 30,445


SIGNATURE OF PRACTITIONER

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Robert M. Asher

(type or print name of person certifying)

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(Information Disclosure Statement-Section 10. Identification of Person(s) Making This Information Disclosure Statement [6-1]-page 11 of 11)